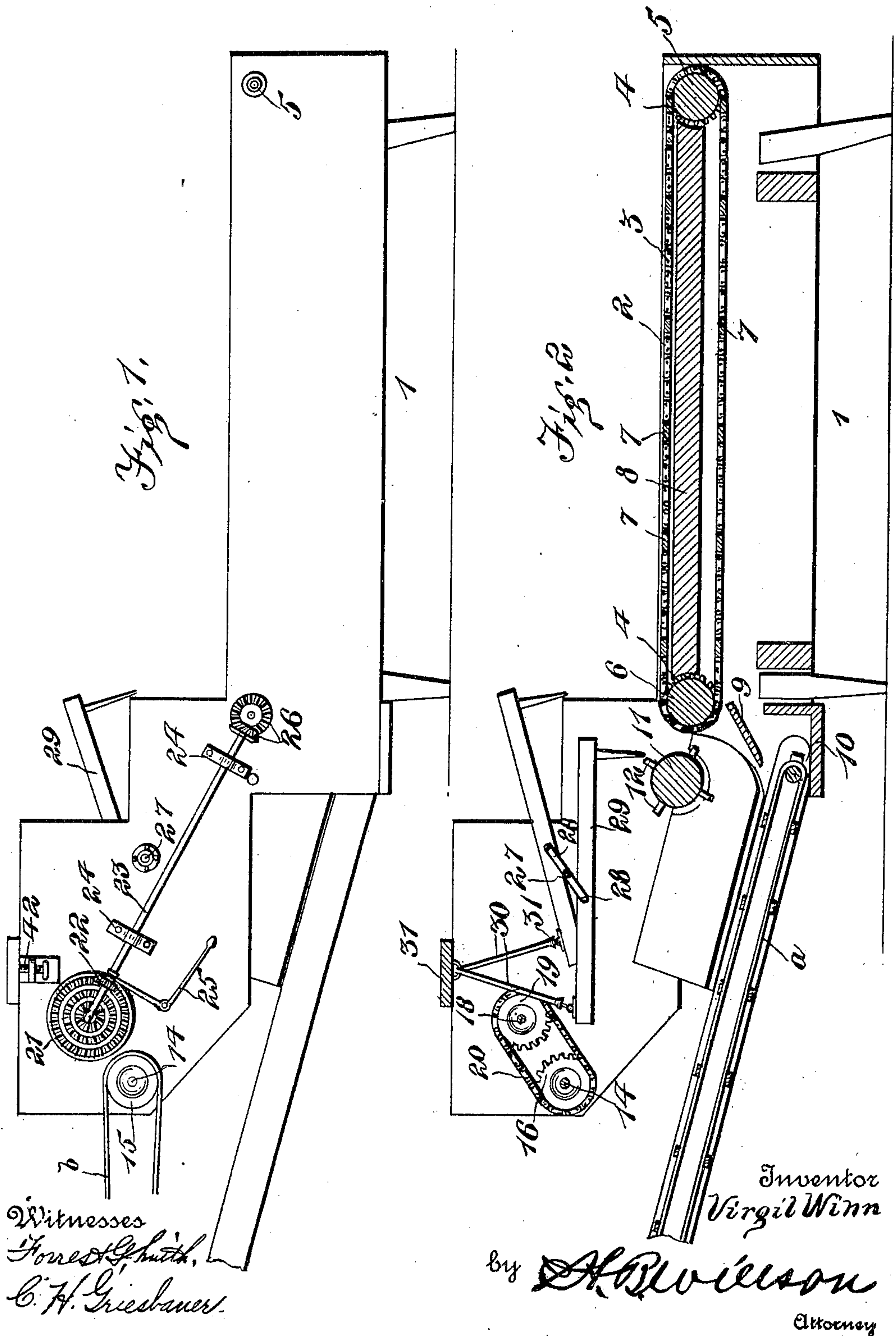


No. 812,106.

PATENTED FEB. 6, 1906.

V. WINN.
SELF FEEDING DERRICK TABLE.
APPLICATION FILED JULY 13, 1905.

2 SHEETS—SHEET 1.

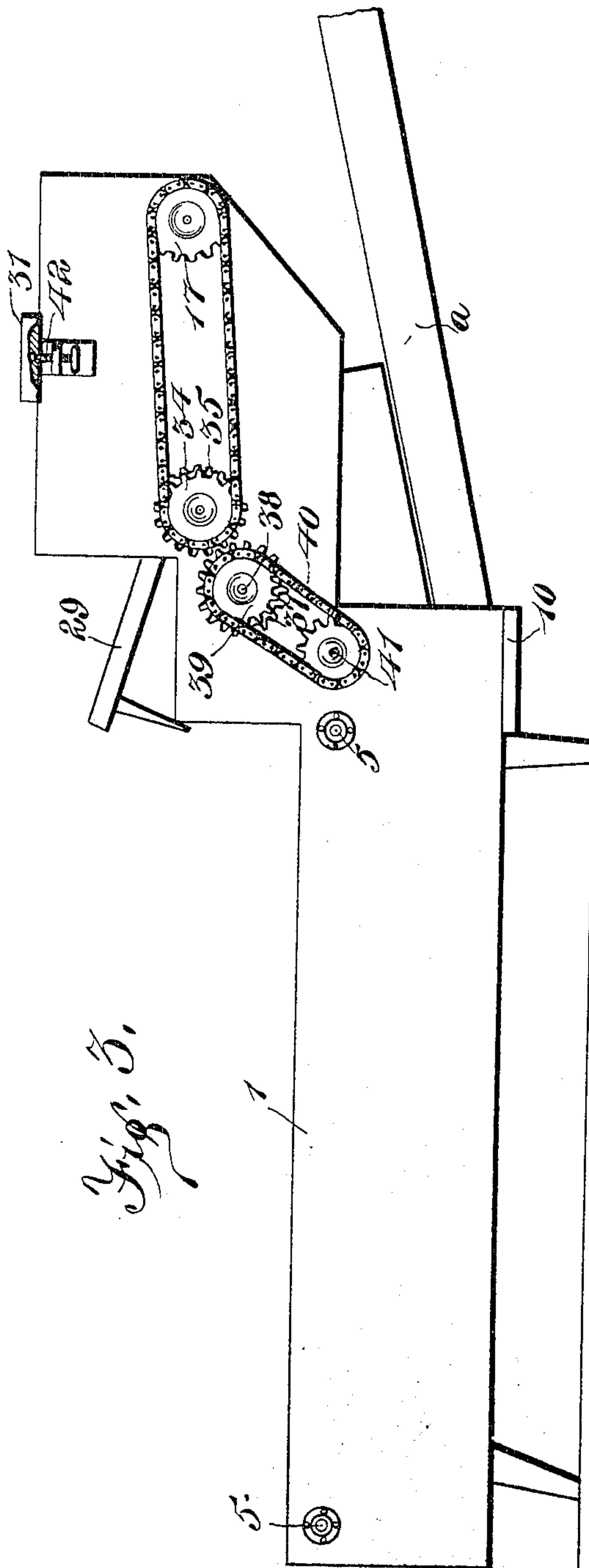


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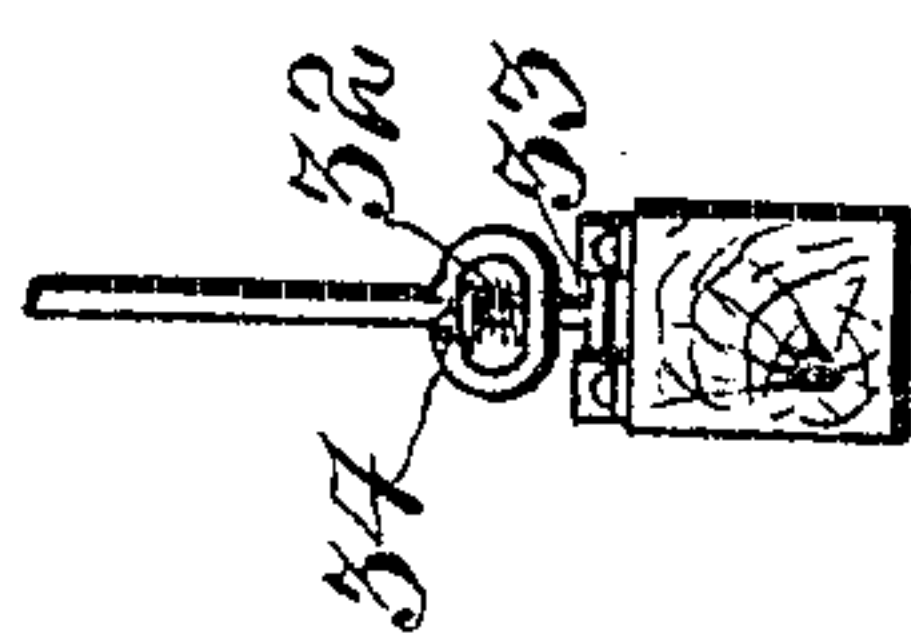
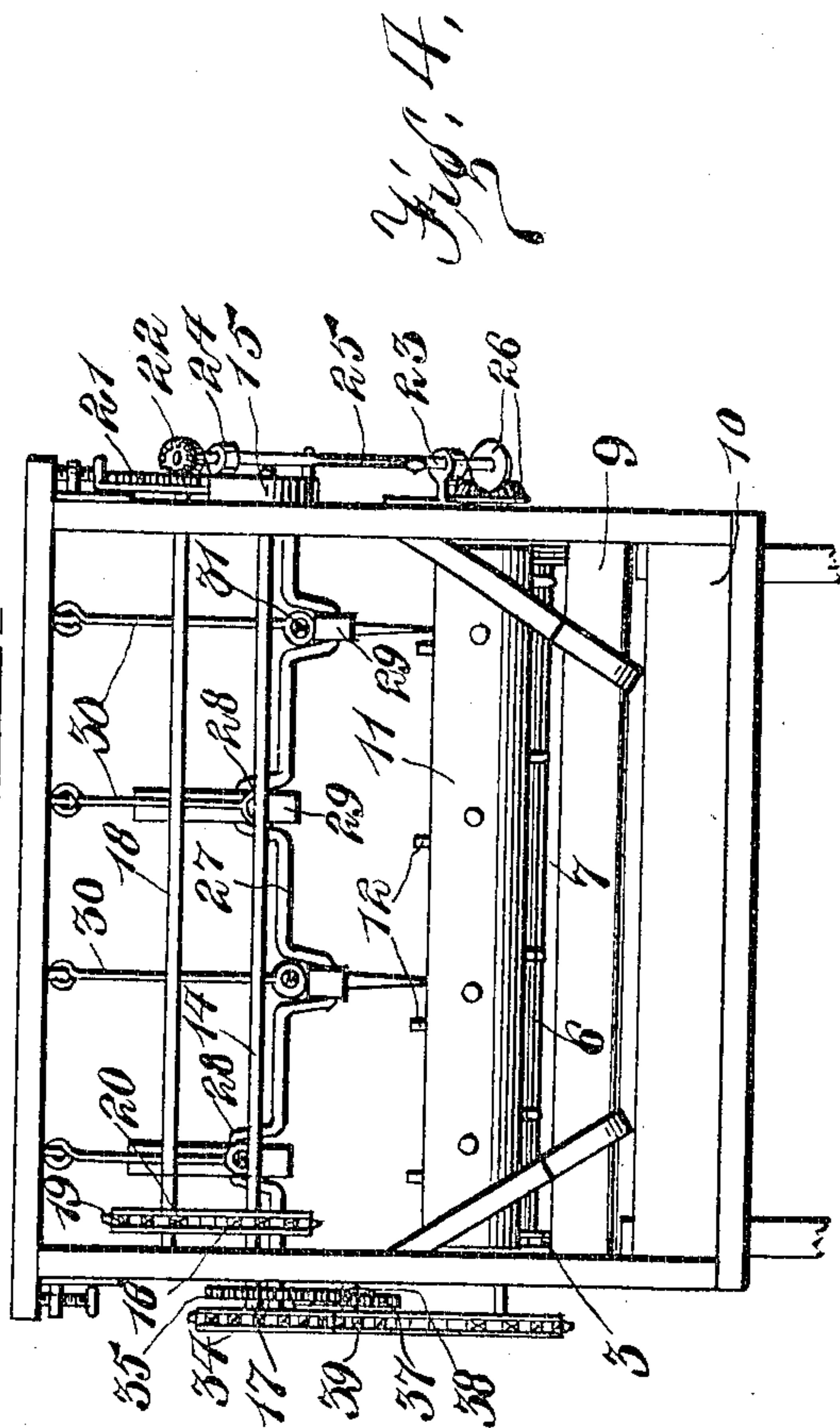
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

VIRGIL WINN, OF TOLER, WASHINGTON.

SELF-FEEDING DERRICK-TABLE.

No. 812,106.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed July 13, 1905. Serial No. 269,537.

To all whom it may concern:

Be it known that I, VIRGIL WINN, a citizen of the United States, residing at Toler, in the county of Douglas and State of Washington, have invented certain new and useful Improvements in Self-Feeding Derrick-Tables; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improved self-feeding derrick-table especially adapted for feeding headed grain to separating-machines; and it consists in the construction and combination of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a machine embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is an elevation of the same, showing the reverse side of the machine from that shown in Fig. 1; and Fig. 4 is an end elevation of the same. Fig. 5 is a cross-section of one of the rake-bars, showing the connection therewith of the swinging link.

The table 1, which is rectangular in form, is of suitable size and construction and is adapted to be placed by the side of a stack of headed grain, and on the same is mounted a suitable derrick (not here shown, as it forms no part of my present improvement) for delivering grain from the stack onto the draper 2, with which the table is provided. The said draper is here shown as comprising endless chains 3, engaging sprocket-wheels 4 on shafts 5 6, journaled near opposite ends of the table, and cross slats or flights 7, which connect the said endless chains. The said slats or flights on the upper leads of the draper pass over the table-top 8. At the discharge end of the table is an inclined transversely-disposed delivery-board 9, and below the same is a rest-board 10, on which one end of the carrier *a* is supported, which carrier serves to deliver grain discharged from the table to the separating-machine. Opposite the shaft 6 and appropriately spaced therefrom is a frame 11, which is provided with radial spirally-disposed spikes or teeth 12. At the discharge end of the table are upwardly and outwardly extended sides 13. A driving-shaft 14 has its bearings in the said extended sides, near the outer ends thereof, and is provided at one end with a power-pulley 15,

driven in the direction indicated by the arrow in Fig. 1 by a suitable power-belt (indicated at *b*.) Near the opposite end of the said shaft is a sprocket-wheel 16, and at the opposite end of said shaft on the outer face of one of the extended sides 13 is a sprocket-wheel 17. A mounted shaft 18 is journaled in the extended sides 13 at a suitable distance from the shaft 14 and has a sprocket-wheel 19, which is connected to the sprocket-wheel 16 by means of an endless sprocket-chain 20. On one end of the said mounted shaft is a crown-gear 21, which has a plurality of series of concentrically-disposed crown-teeth on its outer side. A crown-pinion 22 on an inclined shaft 23, journaled in bearings 24 on one of the extended sides 13, is adapted by a shifting-lever 25 to be shifted into engagement with any of the series of concentrically-disposed crown-teeth with which the crown-gear is provided, so that the shaft 23 may be driven at varying rates of speed. The lower end of the inclined shaft 23 is connected to one end of the shaft 6 of the draper by means of a pair of miter-gears 26. At a suitable distance from the mounted shaft 18 is a shaft 27, which has its bearings in the extended sides 13 and is provided with a suitable number of oppositely-extended cranks 28. Rake-bars 29, which operate over the discharge portion of the draper and over the drum 11, have rake-teeth at their inner ends and have their outer ends connected by swinging links 30 to a vertically-adjustable cross-bar 31, which connects the extended sides of said extensions 13. At the lower end of each link 30 is a yoke 31, in which is mounted a spring 32, here shown as a coiled extensile spring. To the front end of each rake-bar 29 is pivotally connected an upwardly-extending bolt 33, which passes through an opening in the lower end of one of the link-yokes 31 and upwardly through one of the springs 32 and has a head 34 at its upper end to bear on the upper end of the said spring. Hence each rake-bar is yieldably connected to its swinging link, so that the rake-bars are adapted to yield when they engage unyielding bunches of straw and are thereby preserved from such stress as might be calculated to break or injure them. The shaft 23 being rotated by means hereinafter described imparts in connection with the swinging links reciprocatory oscillatory motion to the said rake-bars. It will be under-

stood that the said rake-bars in coaction with the revolving drum 11 serve to prevent the choking of the grain at the discharge end of draper and cause the grain to be evenly discharged from the draper to the carrier which directly feeds the separator.

The shaft 23 has at one end a sprocket-wheel 34 and also a spur-gear 35. The former is connected to the sprocket-wheel 17 of shaft 14 by an endless sprocket-chain 36, and the latter meshes with a spur-gear 37 on a stub-shaft 38. A sprocket-wheel 39 also is mounted on the said stub-shaft and revolves with the said spur-gear 37 and is connected by means of an endless sprocket-chain 40 with a sprocket-wheel 41 at one end of the shaft of the drum 11. Hence the crank-shaft which operates the rake-bars and the drum is revolved.

Within the scope of my invention any suitable means may be employed to vertically adjust the cross-bar 31. I here show adjusting-screws 42 for this purpose. By adjusting said cross-bar, which carries the swinging links, the rake-bars may be caused to operate at any desired predetermined angle.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the inven-

tion will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A machine of the class described comprising a table having a draper, a revoluble spiked roller spaced from the discharge end of the draper, a deflecting-board for the material which drops from the space between the draper and the spiked roller, a support under said deflecting-board, a carrier having one end resting on said support, said draper and spiked roller discharging on said carrier, and a rocking mechanism operating upon said spiked roller.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

VIRGIL WINN.

Witnesses:

SAM. B. HILL,

DAVID S. SAWYER.